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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,196	11/28/2000	John Redford	12407-004001	7887

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EXAMINER

MEONSKE, TONIA L

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 05/12/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,196

Applicant(s)

REDFORD, JOHN

Examiner

Tonia L Meonske

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 9, 11-15, and 17-20 is/are rejected.
- 7) ☒ Claim(s) 1-7 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed April 7, 2003 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. The cited references designated by the labels "AAAAA" and "ABBBB" have been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 1 is objected to under 35 U.S.C. 101 because it reads on the process of mental steps. In claim 1, line 1, please change the limitation -- A method -- to "A computer implemented method". Appropriate correction is required.

4. Claims 1, 2, and 14 are objected to because of the following informalities: In claims 1, 2, and 14, the limitation "PE states" appears in each of the claims which includes an acronym that has not been defined the first time it appears in the claims. In claim 1, line 3, and claim 14, line 4, please replace the limitation -- PE states -- with the limitation "processor enable (PE) states". Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8, 9, 11, 12, 13, 14, 15, 17, 18, 19 and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gifford, US Patent 4,873,626.

7. Referring to claim 14, Gifford has taught an instruction set stored on a machine-readable medium that is executed by datapaths during conditional processing, the instruction set comprising one or more instructions to:

- a. store PE states of the datapaths prior to conditional processing (Gifford, Figure 11, column 16, lines 32-64, column 15, lines 28-42, PE states are saved in the enabled flags, element 55, prior to the conditional processing.),
- b. determine whether all of the data paths are disabled based on the PE states of the datapaths (Gifford, Figure 11, element 212, column 16, lines 32-64), and branch around the conditional processing if all of the data paths are disabled (Gifford, Figure 11, column 16, lines 32-64, When there are no processing elements enabled, or there aren't any processing elements enabled, then the conditional processing of element 213 is branched around.),
- c. set the states of the datapaths to stored states of the datapaths if the conditional processing block is executed (Column 15, line 54-column 16, line 3, After the conditional processing block is executed the datapath is set to a stored state of the complement of the current enabled flag, element 55.)

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8. Referring to claim 15, Gifford has taught the instruction set of claim 14, as described above, and wherein the conditional processing includes an if-processing block (Gifford, Figure 11, column 16, lines 32-64, see CONSEQUENT code.).

9. Referring to claim 17, Gifford has taught the instruction set of claim 14, as described above, and wherein the conditional processing includes an else-processing block (Gifford, Figure 11, column 16, lines 32-64, see ALTERNATIVE code.).

10. Referring to claim 18, Gifford has taught the instruction set of claim 14, as described above, and wherein the branching is not performed if the program is deterministic (This is inherent in Gifford as the program is deterministic by definition when the code is not branched around.).

11. Claims 8 and 12 do not recite limitations above the claimed invention set forth in claim 14 and are therefore rejected for the same reasons set forth in the rejection of claim 14 above.

12. Referring to claim 9, Gifford has taught the method of claim 8 wherein determining further comprises:

- a. determining whether the program is non-deterministic (This is inherent in Gifford as Gifford branches around code, so therefore the program is determined to be non-deterministic in order to perform the branching.).

13. Claims 11 and 13 do not recite limitations above the claimed invention set forth in claim 18 and are therefore rejected for the same reasons set forth in the rejection of claim 18 above.

14. Referring to claim 19, Gifford has taught the method of claim 8 wherein storing and branching are executed via a single instruction (column 5, lines 12-30, column 13, line 66-

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column 14, line 15, Figure 11, element 211, Storing is executed via a single instruction. Figure 11, element 212, Branching is executing via a single instruction.).

15. Claim 20 does not recite limitations above the claimed invention set forth in claim 19 and are therefore rejected for the same reasons set forth in the rejection of claim 19 above.

Allowable Subject Matter

16. Claims 1-7 would be allowable if rewritten or amended to overcome the objections as set forth in this Office action.

17. Claims 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

19. The following is a statement of reasons for the indication of allowable subject matter: In claim 1, the limitation "deterministic" is interpreted in light of the specification as "executing a program in the same amount of time regardless of whether any work in the program could be skipped", see page 4 line 30-page 5, line 5. The concept of "branching around the conditional processing if the PE states of all of the datapaths are disabled AND the computer program is non-deterministic" in combination with the remaining limitations of the claim is what is new.

Response to Arguments

20. Applicant's arguments filed February 23, 2004 have been fully considered but they are not persuasive.

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21. On page 9, Applicant argues in essence:

“Gifford is not understood to disclose or to suggest at least storing states of datapaths, and setting states of the datapaths to stored states of the datapaths following executing the conditional processing block.”

However, Gifford has in fact taught the newly added limitation of storing states of datapaths (Gifford, Figure 11, column 16, lines 32-64, column 15, lines 28-42, PE states are saved in the enabled flags, element 55, prior to the conditional processing.), and setting states of the datapaths to stored states of the datapaths following executing the conditional processing block (Column 15, line 54-column 16, line 3, After the conditional processing block is executed the datapath is set to a stored state of the complement of the current enabled flag, element 55.). Also see the rejection to claim 14 above. Therefore this argument is moot.

22. On pages 10 and 11, Applicant argues in essence:

“it was said in paragraph 9 of the Office Action that Gifford describes storing PE states. The cited portion of Gifford, namely column 14, lines 36-48, describes storing processed data resulting from an SIMD instruction, not PE states of datapaths as indicated in the Office Action. Base register 56, which were referenced in the Office Action, do not store PE states, but rather store data that points to regions of memory that contain data for processing elements (see, e.g., column 15, lines 33-36).”

It is noted that in the last Office Action, paragraph 9 refers to claim 16. However claim 16 is now a cancelled claim. Furthermore, Gifford has in fact taught storing PE states (Gifford, column 16, lines 32-64, column 15, lines 28-42). PE states are saved in the enabled flags, element 55. Therefore this argument is moot.

Conclusion

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23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

24. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tonia L Meonske whose telephone number is (703) 305-3993.


The examiner can normally be reached on Monday-Friday, 8-4:30.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie P Chan can be reached on (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlm


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